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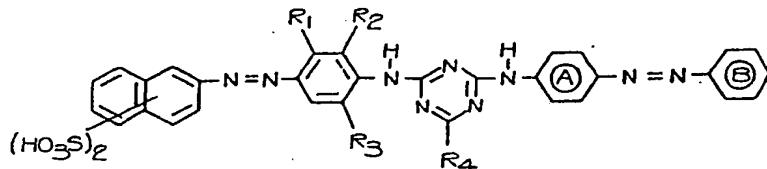
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(54) **Disazo dyestuffs**

(57) **Dyestuffs of the formula**



in which

R₁ is H, halogen, alkoxy or acylamino,

R₂ and R₃ are independently H, halogen, alkyl, alkoxy, or acylamino,

R₄ is halogen, OR₅, SR₅ or NR₆R₇ wherein

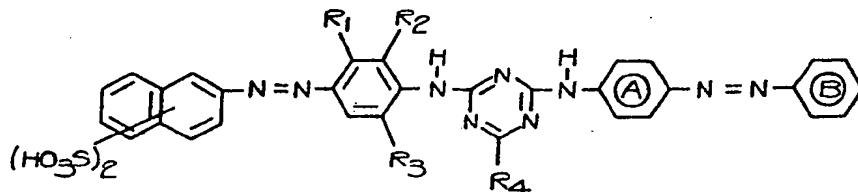
R₅ is H, C₁—C₆-alkyl, aryl, heteroaryl, aralkyl, or cycloalkyl, and

R₆ and R₇ are independently H, amino, optionally substituted C₁—C₆ alkyl, aryl, heteroaryl, aralkyl or cycloalkyl, or together may complete a 5- or 6-membered hetero ring optionally containing further hetero atoms, and wherein rings A and B may be optionally substituted and their use for the dyeing of cellulose containing materials in bright yellow shades.

GB 2 036 780 A

SPECIFICATION
Disazo dyestuffs

The invention relates to new yellow disazo dyestuffs of the general formula I



5 in which

5

R₁ denotes hydrogen, halogen, alkoxy or acylamino,
R₂ and R₃ independently of one another denote hydrogen, halogen, alkyl, alkoxy or acylamino and
R₄ denotes halogen, OR₅, SR₅ or NR₆R₇,

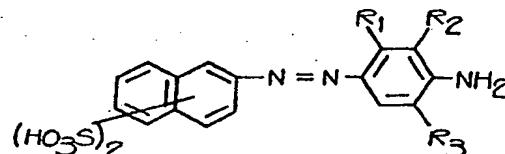
wherein

10 R₅ denotes hydrogen, low-molecular alkyl, aryl, hetaryl, aralkyl or cycloalkyl and
R₆ and R₇, independently of one another denote hydrogen, amino, low-molecular alkyl, aryl, hetaryl,
aralkyl or cycloalkyl, or together form a 5-membered or 6-membered ring, optionally with the
inclusion of one or more hetero-atoms, in particular oxygen and/or nitrogen, it being possible for
alkyl, aryl, hetaryl and aralkyl to be in turn substituted,

15 and in which

15

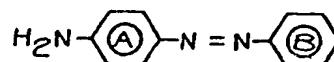
the rings A and B can optionally be substituted, and to a process for their preparation,
characterised in that one mol of a cyanuric trihalide, one mol of an aminoazo compound of the general
formula II



20 in which

20

R₁, R₂ and R₃ have the abovementioned meaning one mol of an aminoazo compound of the
general formula III



III

in which

25 the rings A and B can optionally be substituted, and optionally one mol of a compound of the
general formula IV

25

HR₄

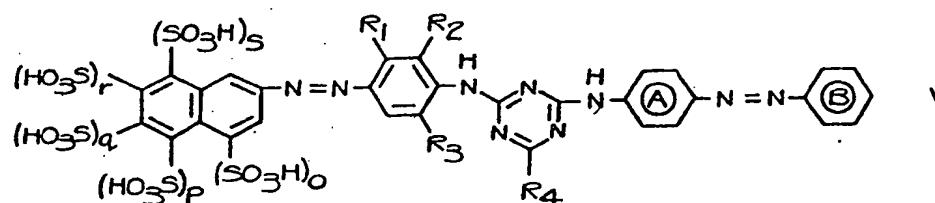
IV

in which

R₄ is other than halogen,

30 are reacted with one another in any desired sequence in the presence of an acid-binding agent, the
aminoazo compounds of the general formulae II and III being prepared in a known manner.
Advantageous dyestuffs are those of the general formula V

30



in which

35 R₁, R₂, R₃ and R₄ have the abovementioned meaning and o, p, q, r and s are 0 or 1, but
o + p + q + r + s equals 2,

35

and in which

the rings A and B can optionally be substituted.

Particularly advantageous dyestuffs are those of the general formulae I and V

in which

5 R₄, o, p, q, r and s have the abovementioned meaning and

5

R₁ denotes NHCOCH₃ or NHCONH₂ when

R₂ and R₃ represent H, or

R₂ denotes H, CH₃, OCH₃ or OC₂H₅ when

R₁ and R₃ represent H,

10 and in which

10

the rings A and B can optionally be substituted.

Very particularly advantageous dyestuffs are those of the general formulae I and V

in which

R₁, R₂, R₃, o, p, q, r and s have the abovementioned meaning,

15 R₄ denotes OH, OCH₃, OC₂H₄OCH₃, NH₂, NHC₂H₄OH, N(C₂H₄OH)₂, NC₂H₄OC₂H₄OH, NHC₆H₅, N(CH₃)C₆H₅, NH(3—C₆H₄SO₃H) or NH(4—C₆H₄SO₃H), N(CH₃)C₂H₄OH, N(C₂H₅)C₂H₄OH,

15

NHCH₂CH(CH₃)OH or N(CH₂CH(CH₃)OH)₂ and

the rings A and B can optionally be substituted.

Interesting dyestuffs are those of the general formulae I and V

20 in which

20

R₁, R₂, R₃, o, p, q, r and s have the abovementioned meaning,

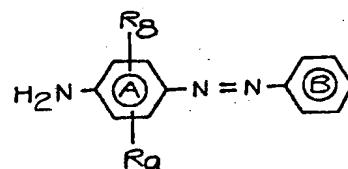
R₄ denotes NH₂, NHC₂H₄OH, N(C₂H₄OH)₂ or N(CH₃)C₂H₄OH

and

the rings A and B can optionally be substituted.

25 Dyestuffs of the general formulae I and B which are prepared using compounds of the general formula VI

25



VI

in which

30 R₈ and R₉ independently of one another denote H, Cl, OH, OCH₃, OC₂H₅, OCOCH₃, OCOC₆H₅, OSO₂CH₃, OSO₂C₆H₅, CH₃, CH₂SO₃H, NH₂, NHCOCH₃, NHCOCH₂OH, NHCOC₆H₅, NHCONH₂, NHSO₂CH₃, NHSO₂C₆H₅, COOH or SO₃H,

30

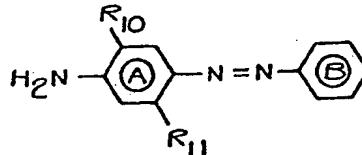
and in which

the ring B can optionally be substituted,

as compounds of the general formula III are preferred.

35 Dyestuffs of the general formulae I and V which are prepared using compounds of the general formula VII

35



VII

in which

R₁₀ denotes H, CH₃, Cl, OCH₃, OC₂H₅ or SO₃H and

40 R₁₁ denotes H, CH₃, Cl, OCH₃, OC₂H₅, NHCOCH₃ or NHCONH₂,

40

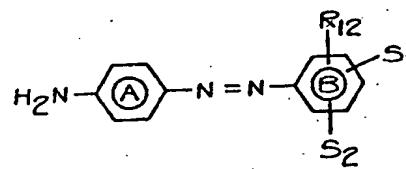
and in which

the ring B can optionally be substituted,

as compounds of the general formula III are particularly preferred.

45 Dyestuffs of the general formulae I and V which are prepared using compounds of the general formula VIII

45



VIII

in which

R₁₂ denotes H, Cl, CH₃, OCH₃, OC₂H₅ or OH and

S_1 and S_2 independently of one another denote H, SO_3H , COOH or $\text{CH}_2\text{SO}_3\text{H}$, and in which the ring A can optionally be substituted, as compounds of the general formula III are very particularly preferred.

5 Particularly interesting dyestuffs are those of the general formulae I and V which are prepared using compounds of the general formula VIII in which

R_{12} denotes 4—H, 4— CH_3 , 4—OH or 4— OCH_3 , when

S_1 represents 3— SO_3H , 3— COOH or 3— $\text{CH}_2\text{SO}_3\text{H}$ and

10 S_2 represents H, or

R_{12} denotes 3—H, when

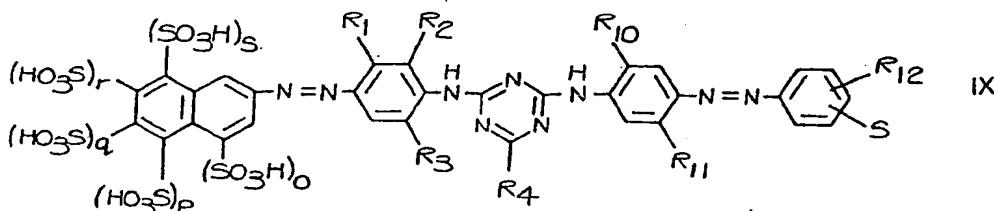
S_1 represents 4— SO_3H , 4— COOH or 4— $\text{CH}_2\text{SO}_3\text{H}$ and

S_2 represents H,

and in which

15 the ring A can optionally be substituted, as compounds of the general formula III.

Dyestuffs of the general formula IX



in which

20 o, p, q, r and s are 0 or 1, but $o + p + q + r + s$ equals 2, and in which

R_1 denotes NHCOCH_3 or NHCONH_2 , when

R_2 and R_3 represent H, or

R_2 denotes H, OCH_3 or OC_2H_5 , when

25 R_1 and R_3 represent H, and

R_4 denotes NH_2 , $\text{NHC}_2\text{H}_4\text{OH}$, $\text{N}(\text{C}_2\text{H}_4\text{OH})_2$ or $\text{N}(\text{CH}_3)\text{C}_2\text{H}_4\text{OH}$,

R_{10} denotes H, CH_3 , Cl, OCH_3 , OC_2H_5 or SO_3H ,

R_{11} denotes H, CH_3 , Cl, OCH_3 , OC_2H_5 , NHCOC_2H_5 or NHCONH_2 and

R_{12} denotes 4—H, 4— CH_3 , 4—OH or 4— OCH_3 , when

30 S represents 3— SO_3H , 3— COOH or 3— $\text{CH}_2\text{SO}_3\text{H}$, or

R_{12} denotes 3—H, when

S represents 4— SO_3H , 4— COOH or 4— $\text{CH}_2\text{SO}_3\text{H}$,

are of very particular interest.

Examples of aminoazo compounds of the general formula II are those which are obtained by

35 diazotising 2-aminonaphthalenedisulphonic acids, such as, for example, 2-aminonaphthalene-1,5-disulphonic acid, 2-aminonaphthalene-3,6-disulphonic acid, 2-aminonaphthalene-3,7-disulphonic acid, 2-aminonaphthalene-4,8-disulphonic acid, 2-aminonaphthalene-5,7-disulphonic acid or 2-aminonaphthalene-6,8-disulphonic acid, and coupling the diazotisation products to aminobenzenes which are optionally substituted in the 2-position or in the 3-position, such as, for example, aniline, 2-

40 methylaniline, 2-methoxyaniline, 2-ethoxyaniline, 2-chloroaniline, 3-acetylaniiline or 3-aminophenylurea; the ω -methanesulphonic acids of the abovementioned aminobenzenes can equally well be used as coupling components, the protective group being split off again, by treatment with acids or alkalis, after the coupling.

Examples of aminoazo compounds of the general formula III are those which are obtained by

45 diazotising optionally substituted aminobenzenes, such as, for example, aniline, 2-chloroaniline, 3-chloroaniline, 4-chloroaniline, 2-methylaniline, 3-methylaniline, 4-methylaniline, 2-methoxyaniline, 3-methoxyaniline, 4-methoxyaniline, 2-ethoxyaniline, 3-ethoxyaniline, 4-ethoxyaniline, 2-

50 aminobenzenesulphonic acid, 3-aminobenzenesulphonic acid, 4-aminobenzenesulphonic acid, anthranilic acid, 3-aminobenzoic acid, 4-aminobenzoic acid, 5-amino-2-hydroxybenzoic acid, 5-amino-2-methylbenzenesulphonic acid, 3-aminophenylmethanesulphonic acid or 4-

55 aminophenylmethanesulphonic acid, and coupling the diazotisation products to optionally substituted aminobenzenes, such as, for example, aniline, 2-methylaniline, 3-methylaniline, 2-methoxyaniline, 3-methoxyaniline, 2-ethoxyaniline, 3-ethoxyaniline, 2-methoxy-5-methylaniline, 2-ethoxy-5-methylaniline, 5-methoxy-2-methylaniline, 2-aminophenol, 3-aminophenol, 2,5-dimethylaniline, 3,5-dimethylaniline, 2,5-dimethoxyaniline, 3-acetylaminooaniline, 3-methylsulphonylaminooaniline, 3-aminophenylurea, 1,3-diaminobenzene, 3-amino-4-methylbenzenesulphonic acid, 3-amino-4-hydroxybenzenesulphonic acid, 3-amino-4-methoxybenzenesulphonic acid or 3-

aminophenylmethanesulphonic acid; the ω -methanesulphonic acids of the abovementioned aminobenzenes can equally well be used as coupling components, the protective group being split off again, by treatment with acids or alkalis, after the coupling.

Examples of aminoazo compounds of the general formula III are also those which are obtained by 5 diazotising optionally further substituted 4-nitroaminobenzenes, such as, for example, 4-nitroaniline, 4-nitro-2-methoxyaniline, 4-nitroaniline-2-sulphonic acid or 4-nitro-5-methoxyaniline-2-sulphonic acid, and coupling the diazotisation products to optionally substituted hydroxybenzenes, such as, for 10 example, phenol, salicylic acid, 3-hydroxybenzoic acid, 2-hydroxy-6-methylbenzoic acid, 2-hydroxybenzenesulphonic acid or 3-hydroxybenzenesulphonic acid, and then reducing the nitroazo compound to give the aminoazo compound. 10

Examples of aminoazo compounds of the general formula III are also those which are obtained on treating other aminoazo compounds of the general formula III with agents with which sulphonic acid radicals can be introduced, such as, for example, sulphuric acid, oleum or sulphur trioxide, an example being 4-amino-3,4'-azobenzenedisulphonic acid.

15 Examples of compounds of the general formula IV are water, methanol, ethanol, glycol, 2-methoxyethanol, phenol, thiophenol, ammonia, hydrazine, methylamine, ethylamine, dimethylamine, diethylamine, ethanolamine, diethanolamine, N-methylethanolamine, N-ethylethanolamine, glycine, N-methylglycine, taurine, N-methyltaurine, aminomethanesulphonic acid, N-methylaminomethanesulphonic acid, aniline, N-methylaniline, 3-aminobenzenesulphonic acid, 4-aminobenzenesulphonic acid, 2-aminonaphthalene-4,8-disulphonic acid, 2-aminopyridine, 2-aminothiazole, benzylamine, pyrrolidine, piperidine, morpholine, 1-amino-2-propanol and bis-(2-hydroxypropyl)-amine. 20

The reaction between the cyanuric halide, for example cyanuric fluoride, cyanuric chloride or cyanuric bromide, the aminoazo compounds of the general formulae II and III and the compounds of the 25 general formula IV is carried out in three stages in any desired sequence, the first stage being carried out at about 0—10°, the second at about 35—50° and the third at about 80—110°C, and the acid thereby formed being neutralised with alkaline agents, such as, for example, sodium acetate, sodium bicarbonate, sodium carbonate, sodium hydroxide solution, lithium carbonate, lithium hydroxide, potassium carbonate or potassium hydroxide. 25

30 Those aminoazo compounds or compounds of the general formula IV which carry groups conferring solubility in water are advantageously reacted first. 30

The dyestuffs are precipitated from the solution by adding salt and are isolated and dried or isolated by spray-drying. In general, they are obtained in the form of salts, in particular the alkali metal salts, and preferably the sodium salts. The formulae given are those of the free acids.

35 The new dyestuffs dye cellulose-containing materials in clear yellow colour shades. 35

In the examples which follow, "parts" denote parts by weight, "percentages" denote percentages by weight and the temperature is given in degrees Centigrade.

EXAMPLE 1

29.5 parts of the aminoazo compound, of the general formula II, obtained from 2-40 aminonaphthalene-4,8-disulphonic acid and aniline are dissolved in 1,000 parts of water, and a solution of 13.5 parts of cyanuric chloride in 100 parts of acetone is added at 0°, the hydrochloric acid liberated being neutralised by adding 46.5 parts of an aqueous 20% strength solution of sodium carbonate. When the first reaction stage has ended, 22.2 parts of the aminoazo compound, of the general formula III, obtained from 3-aminobenzenesulphonic acid and 2-methoxyaniline are dissolved in 1,000 parts of 45 water and the solution is added to the first mixture. The temperature is increased to 40° and the hydrochloric acid liberated is neutralised by adding 46.5 parts of 20% strength sodium carbonate solution. When the second reaction stage has ended, 15.2 parts of diethanolamine are added. The temperature is increased to 90°, and the mixture is then stirred at this temperature for a further 3 hours. The dyestuff is precipitated by adding 450 parts of potassium chloride and is isolated. After drying, an 50 orange-coloured powder, an aqueous solution of which dyes cellulose-containing materials in greenish-tinged yellow shades, is obtained. 50

EXAMPLES 2 to 4

Very similar dyestuffs are obtained if, instead of the diethanolamine used in Example 1, 18 parts of an aqueous 25% strength solution of ammonia or 8.9 parts of ethanolamine or N-methylethanolamine 55 are used. 55

EXAMPLE 5

18.6 parts of the aminoazo compound, of the general formula III, which is obtained by diazotising 4-nitroaniline, coupling the diazotisation product to salicylic acid and then reducing the coupling product are dissolved in 1,000 parts of water and the solution is reacted with a suspension of 13.5 parts 60 of cyanuric chloride in 100 parts of water at 0°, the hydrochloric acid liberated being neutralised by adding 46.5 parts of an aqueous 20% strength solution of sodium carbonate. When the first reaction stage has ended, 29.5 parts of the aminoazo compound, of the general formula II, which is obtained

Example	Compound of the general formula III, obtained from	Compound of the general formula IV
66	4-aminophenylmethanesulphonic acid and 3-acetylaminooaniline	ammonia
67	3-aminophenylmethanesulphonic acid and 3-acetylaminooaniline	diethanolamine
68	"	ethanolamine
69	"	ammonia
70	4-aminobenzenesulphonic acid and 3-aminophenylurea	diethanolamine
71	"	ethanolamine
72	"	ammonia
73	3-aminobenzenesulphonic acid and 3-aminophenylurea	diethanolamine
74	"	ethanolamine
75	"	ammonia
76	4-aminobenzoic acid and 3-aminophenylurea	diethanolamine
77	"	ethanolamine
78	"	ammonia
79	3-aminobenzoic acid and 3-aminophenylurea	diethanolamine
80	"	ethanolamine
81	"	ammonia
82	5-amino-2-methylbenzenesulphonic acid and 3-aminophenylurea	diethanolamine
83	"	ethanolamine
84	"	ammonia
85	4-aminophenylmethanesulphonic acid and 3-aminophenylurea	diethanolamine
86	"	ethanolamine
87	"	ammonia
88	3-aminophenylmethanesulphonic acid and 3-aminophenylurea	diethanolamine
89	"	ethanolamine
90	"	ammonia
91	4-nitroaniline and salicylic acid	diethanolamine
92	"	ethanolamine
93	"	ammonia

Example	Compound of the general formula III, obtained from	Compound of the general formula IV
38	3-aminobenzoic acid and 2-methoxyaniline	ethanolamine
39	"	ammonia
40	5-amino-2-methylbenzenesulphonic acid and 2-methoxyaniline	diethanolamine
41	"	ethanolamine
42	"	ammonia
43	4-aminophenylmethanesulphonic acid and 2-methoxyaniline	diethanolamine
44	"	ethanolamine
45	"	ammonia
46	3-aminophenylmethanesulphonic acid and 2-methoxyaniline	diethanolamine
47	"	ethanolamine
48	"	ammonia
49	4-aminobenzenesulphonic acid and 3-acetylamoaniline	diethanolamine
50	"	ethanolamine
51	"	ammonia
52	3-aminobenzenesulphonic acid and 3-acetylamoaniline	diethanolamine
53	"	ethanolamine
54	"	ammonia
55	4-aminobenzoic acid and 3-acetylamoaniline	diethanolamine
56	"	ethanolamine
57	"	ammonia
58	3-aminobenzoic acid and 3-acetylamoaniline	diethanolamine
59	"	ethanolamine
60	"	ammonia
61	5-amino-2-methylbenzenesulphonic acid and 3-acetylamoaniline	diethanolamine
62	"	ethanolamine
63	"	ammonia
64	4-aminophenylmethanesulphonic acid and 3-acetylamoaniline	diethanolamine
65	"	ethanolamine

Example	Compound of the general formula III, obtained from	Compound of the general formula IV
7	4-aminobenzenesulphonic acid and aniline	diethanolamine
8	"	ethanolamine
9	"	ammonia
10	3-aminobenzeneaulphonic acid and aniline	diethanolamine
11	"	ethanolamine
12	"	ammonia
13	4-aminobenzoic acid and aniline	diethanolamine
14	"	ethanolamine
15	"	ammonia
16	3-aminobenzoic acid and aniline	diethanolamine
17	"	ethanolamine
18	"	ammonia
19	5-amino-2-methylbenzenesulphonic acid and aniline	diethanolamine
20	"	ethanolamine
21	"	ammonia
22	4-aminophenylmethanesulphonic acid and aniline	diethanolamine
23	"	ethanolamine
24	"	ammonia
25	3-aminophenylmethanesulphonic acid and aniline	diethanolamine
26	"	ethanolamine
27	"	ammonia
28	4-aminobenzenesulphonic acid and 2-methoxyaniline	diethanolamine
29	"	ethanolamine
30	"	ammonia
31	3-aminobenzenesulphonic acid and 2-methoxyaniline	diethanolamine
32	"	ethanolamine
33	"	ammonia
34	4-aminobenzoic acid and 2-methoxyaniline	diethanolamine
35	"	ethanolamine
36	"	ammonia
37	3-aminobenzoic acid and 2-methoxyaniline	diethanolamine

from 2-aminonaphthalene-4,8-disulphonic acid and aniline are dissolved in 1,000 parts of water and the solution is added to the first mixture. The temperature is increased to 40° and the subsequent procedure is as in Example 1. An orange-coloured powder, an aqueous solution of which dyes cellulose-containing materials in greenish-tinged yellow shades, is obtained.

5 EXAMPLE 6

Very similar dyestuffs are obtained if, instead of the diethanolamine used in Example 5, 18 parts of an aqueous 25% strength solution of ammonia, 8.9 parts of ethanolamine or 10.9 parts of N-methylethanolamine are used.

EXAMPLES 7 to 96

10 If the procedure of the processes indicated in Examples 1—6 is followed and the product obtained from 2-aminonaphthalene-4,8-disulphonic acid and aniline is used as the compound of the general formula II and the compounds indicated in the table below are used as the compounds of the general formulae III and IV, yellow dyestuffs for cellulose-containing materials are likewise obtained: 10

Example	Compound of the general formula III, obtained from	Compound of the general formula IV
94	4-aminoazobenzene and 2 mols of SO_3 (4-aminoazobenzene-2,4'-disulphonic acid)	diethanolamine
95	"	ethanolamine
96	"	ammonia

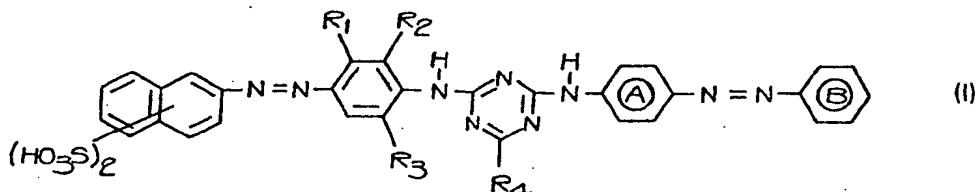
Similarly good dyestuffs are obtained using N-methylethanalamine as compound IV.

Similarly good dyestuffs are obtained if, instead of the compound of the general formula II used in Examples 1—96, those obtained from 2-aminonaphthalene-4,8-disulphonic acid and 2-methoxyaniline or 3-acetaminoaniline and 3-aminophenylurea are used.

5 CLAIMS

5

1. A dyestuff of the general formula



in which

R₁ denotes a hydrogen or halogen atom or an alkoxy or acylamino group,

10 R₂ and R₃ independently of each other denote a hydrogen or halogen atom or an alkyl, alkoxy, or acylamino group and

R₄ denotes a halogen atom or an OR₅, SR₅ or NR₆R₇ group

in which

R₅ denotes a hydrogen atom, C₁ to C₆ alkyl, aryl, hetaryl, aralkyl or cycloalkyl and

15 R₆ and R₇ independently of each other denote a hydrogen atom or an amino, C₁ to C₆ alkyl, aryl, hetaryl, aralkyl or cycloalkyl group, or together form a 5-membered or 6-membered ring, 15 optionally with the inclusion of one or more hetero-atoms, and the alkyl, aryl, hetaryl and aralkyl groups are optionally substituted,

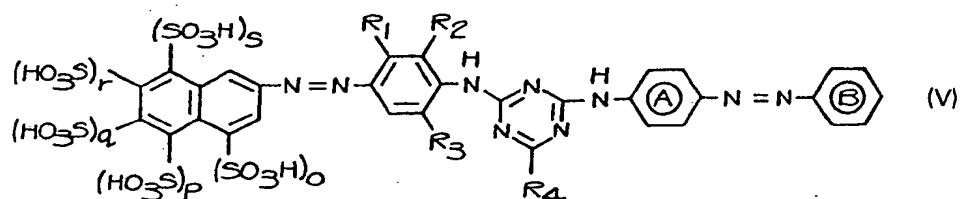
and in which

20 the rings A and B are optionally substituted.

20

2. A dyestuff according to claim 1 in which R₆ and R₇ together form a 5-membered or 6-membered ring with the inclusion of one or more oxygen and/or nitrogen atoms.

3. A dyestuff according to claim of the general formula



25 in which

25

R₁, R₂, R₃ and R₄ have the same meanings as in claim 1 and
o, p, q, r and s are 0 or 1, but o + p + q + r + s equals 2,

and in which

the rings A and B are optionally substituted.

30 4. A dyestuff according to any of the foregoing claims in which R₄ has the same meaning as in
claim,

30

o, p, q, r and s have the same meaning as in claim 3 and

R₁ denotes NHCOCH_3 or NHCONH_2 when

R₂ and R₃ denote hydrogen atoms, or

35 R₂ denotes a hydrogen atom or a methyl, methoxy, or ethoxy group when

35

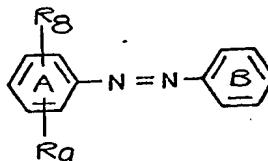
R₁ and R₃ denote hydrogen atoms,
and in which
the rings A and B are optionally substituted.

5. A dyestuff according to any of the foregoing claims in which
5 R₁, R₂ and R₃ have the same meanings as in claim 1 or 4,
o, p, q, r and s have the same meaning as in claim 3 and
R₄ denotes OH, OCH₃, OC₂H₅OCH₃, NH₂, NHC₂H₄OH, N(C₂H₄OH)₂, N(CH₃)C₂H₄OH, N(C₂H₅)C₂H₄OH,
NHC₂CH(CH₃)OH, N(CH₂CH(CH₃)OH₂, NC₂H₄OC₂H₄, NHC₆H₅, N(CH₃)C₆H₅, NH(3—C₆H₄SO₃H)
or NH(4—C₆H₄SO₃H)

10 and in which
the rings A and B are optionally substituted.

10 6. A dyestuff according to claim 5,
in which
R₁, R₂ and R₃ have the same meaning as in claim 1 or 4,
15 o, p, q, r and s have the same meaning as in claim 3, and
R₄ denotes NH₂, NHC₂H₄OH, N(C₂H₄OH)₂ or N(CH₃)C₂H₄OH,
and in which
the rings A and B are optionally substituted.

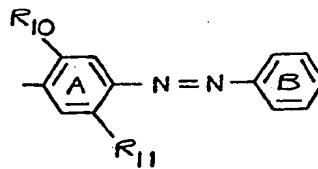
15 7. A dyestuff according to any of the foregoing claims in which the moiety consisting of rings A
20 and B and the intervening azo bridge is a radical of the general formula



(Va)

in which
R₈ and R₉ independently of each other denote a hydrogen or chlorine atom or an OH, OCH₃, OC₂H₅,
OCOCH₃, OCOC₆H₅, OSO₂CH₃, OSO₂C₆H₅, CH₃, CH₂SO₃H, NH₂, NHCOCH₃, NHCOCH₂OH,
25 NHCOC₆H₅, NHCONH₂, NSO₂CH₃, NSO₂C₆H₅ COOH or SO₃H group,
and in which
the ring B is optionally substituted.

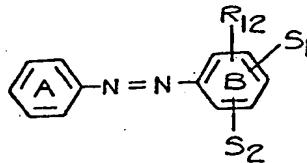
8. A dyestuff according to claim 7 in which the radical (Va) is of the general formula



(Vb)

30 in which
R₁₀ denotes H, CH₃, Cl, OCH₃, OC₂H₅ or SO₃H and
R₁₁ denotes H, CH₃, Cl, OCH₃, OC₂H₅, NHCOCH₃ or NHCONH₂,
and in which
the ring B is optionally substituted.

35 9. A dyestuff according to any of the foregoing claims in which the moiety consisting of rings A
and B and the intervening azo bridge is a radical of the general formula



(Vc)

in which
R₁₂ denotes a hydrogen or chlorine atom or a methyl, methoxy, ethoxy or hydroxyl group
40 S₁ and S₂ independently of each other denote a hydrogen atom or a SO₃H, COOH or CH₂SO₃H group,
and in which
the ring A is optionally substituted.

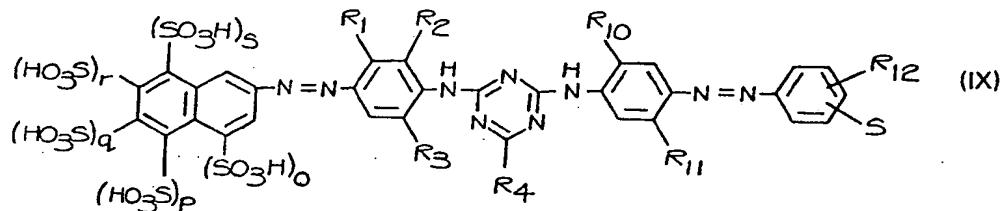
45 10. A dyestuff according to claim 9 in which
R₁₂ denotes 4—H, 4—CH₃, 4—OH or 4—OCH₃, when
S₁ denotes 3—SO₃H, 3—COOH or 3—CH₂SO₃H and

S_2 denotes a hydrogen atom,
 R_{12} denotes 3—H, when
 S_1 denotes 4— SO_3H , 4— COOH or 4— $\text{CH}_2\text{SO}_3\text{H}$ and
 S_2 denotes a hydrogen atom.

5 and in which
the ring A can optionally be substituted.

5

11. A dyestuff according to claim 1 of the general formula



in which

10 o, p, q, r and s are 0 or 1, but $o + p + q + r + s$ equals 2,
and in which

10

R_1, R_2 and R_3 have the same meanings as in claim 4,

R_4 has the same meaning as in claim 6,

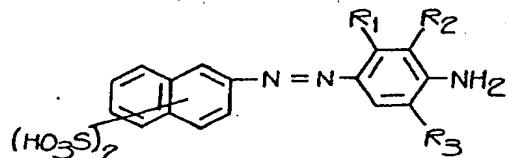
R_{10} and R_{11} have the same meanings as in claim 8, and

15 R_{12} and S have the same meanings as in claim 10.

15

12. A dyestuff according to claim 1 as hereinbefore specifically identified.

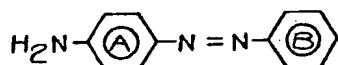
13. A process for the production of a dyestuff as claimed in claim 1 in which, per mol a cyanuric trihalide, one mol of an aminoazo compound of the general formula



20 in which

20

R_1, R_2 and R_3 have the same meanings as in claim 1, one mol of an aminoazo compound of the general formula



in which

25 the rings A and B are optionally substituted, if R_4 is other than a halogen atom, one mol of a compound of the general formula

25



in which

30 R_4 has the same meaning as in claim 1, other than a halogen atom, are reacted with one another in any desired sequence in the presence of an acid-binding agent.

30

14. A process for the production of a dyestuff as claimed in claim 1 when carried out substantially as described in any one of the Examples.

15. A dyestuff as claimed in claim 1 when produced by the process of claim 14.

16. A process for dyeing a cellulose-containing material comprising treating the material with a

35 dyestuff as claimed in any of claims 1 to 12 and 15.

35

17. A cellulose-containing material when dyed by the process of claim 6.